

**DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT
FOR
REDUCING VULTURE DAMAGE THROUGH AN
INTEGRATED WILDLIFE DAMAGE MANAGEMENT PROGRAM IN THE
COMMONWEALTH OF VIRGINIA**

The U.S. Department of Agriculture, Animal and Plant Health Inspection Service (USDA-APHIS), Wildlife Services (WS) program responds to requests for assistance from individuals, organizations and agencies experiencing damage caused by wildlife. Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions may be categorically excluded (7 CFR 372.5(c), 60 Fed. Reg. 6000-6003 1995). To evaluate and determine if any potentially significant impacts to the human environment from WS' planned and proposed program would occur, an environmental assessment (EA) was prepared in cooperation with the United States Department of Interior (USDI), Fish and Wildlife Service (USFWS). Due to additional concerns raised by the public about biological impacts to vulture populations from lethal management, WS conducted a more in depth analyses of the biological impacts of lethal management in an Amendment to the EA. The EA documented the need for vulture damage management in the Commonwealth of Virginia and assessed potential impacts of various alternatives for responding to damage problems. WS' proposed action is to implement an Integrated Wildlife Damage Management (IWDM) program on all land classes in Virginia. Comments from the public involvement process were reviewed for substantial issues and alternatives which were considered in developing this decision.

The EA and the Amendment to the EA analyzed the potential environmental and social effects for resolving damage to agriculture and property, and threats to public health and safety from vultures on private and public lands in Virginia. Virginia has an area of 26,090,880 acres; in Fiscal Year (FY) 2004, Virginia WS had agreements to conduct vulture damage management on about 25,936 acres or less than 0.1% of the land area (Management Information System (MIS) 2005).

WS is the Federal program authorized by law to reduce damage caused by wildlife (Animal Damage Control Act of March 2, 1931, as amended (46 Stat. 1486; 7 U.S.C. 426-426c) and the Rural Development, Agriculture, Related Agencies Appropriations Act of 1988, Public Law 100-102, Dec. 27, 1987. Stat. 1329-1331 (7 U.S.C. 426c), and the Agriculture, Rural Development, Food and Drug Administration, and Related Agencies Appropriations Act of 2001, Public Law 106-387, October 28, 2000. Stat. 1549 (Sec 767). Wildlife damage management is the alleviation of damage or other problems caused by or related to the presence of wildlife and is recognized as an integral part of wildlife management (The Wildlife Society 1992). WS uses an Integrated Wildlife Damage Management (IWDM) approach, commonly known as Integrated Pest Management (WS Directive 2.105) in which a combination of methods may be used or recommended to reduce damage. WS wildlife damage management is not based on punishing offending animals but as one means of reducing damage and is used as part of the WS Decision Model (Slate et al. 1992, USDA 1997 Revised, WS Directive 2.201). The imminent threat of damage or loss of resources is often deemed sufficient for wildlife damage management actions to be initiated (U.S. District Court of Utah 1993). Resource management agencies and individuals have requested WS to conduct vulture damage management to protect agriculture and property in Virginia. Resource owners have also requested WS conduct vulture damage management to protect human health and safety. All Virginia WS wildlife damage management is in compliance with all applicable laws, regulations, policies, orders and procedures, including the Endangered Species Act of 1973.

Virginia WS works and consults with the Virginia Department of Game and Inland Fisheries (VDGIF), Virginia Department of Agriculture and Consumer Services (VDACS), and USDI, USFWS to reduce wildlife damage. The VDGIF has the responsibility to manage all wildlife in Virginia, including federally listed threatened and endangered (T&E) species and migratory birds, which is a joint responsibility with the USFWS. Memoranda of Understanding (MOUs) signed between APHIS-WS and the VDGIF and VDACS clearly outline the responsibility, technical expertise and coordination between agencies. A Multi-agency Team with representatives and consultants from VDGIF and USFWS

cooperated in the assessment of the impacts of WS vulture damage management alternatives in Virginia. The VDGIF and USFWS also worked with Virginia WS to determine whether the proposed action is in compliance with relevant management plans, laws, regulations, policies, orders, and procedures.

Consistency

Wildlife damage management conducted in Virginia will be consistent with MOUs and policies of APHIS-WS, the VDGIF, VDACS, and USFWS, the EA and Amendment to the EA. The agencies may, at times, restrict the list of damage management techniques due to concerns regarding public safety or resource values.

Monitoring

The Virginia WS program will annually provide to the VDGIF and USFWS the WS take of target and nontarget animals to help insure the total statewide take (WS and other take) does not impact the viability of vulture populations as determined by the VDGIF or USFWS. In addition, the EA and Amendment to the EA will be reviewed each year to ensure that the issues and the analyses are sufficient.

In calendar year 2003, WS took 93 black vultures and 51 turkey vultures and dispersed 4,454 vultures by harassment methods. The largest number of vultures removed by Virginia WS to resolve damage problems in any year was 549 vultures in calendar year 2002 (MIS, unpub. Data; Tables 3 & 4). Also, WS dispersed 8,122 black and turkey vultures with harassment methods in calendar year 2002. In calendar year 2001, 202 vultures were taken and 1,409 were dispersed. In calendar year 2000, 116 vultures were taken. However, the public involvement process for this EA and media campaigns conducted by some advocacy groups resulted in an increased public awareness of Virginia WS damage management assistance. As a result, there is a potential for increased requests for assistance with vulture damage problems and the potential requirement for the removal of a larger number of vultures. Even with an anticipated increase in requests for services it is unlikely that WS would remove 1,500 vultures (1,000 black and 500 turkey vultures) in any one year in Virginia. However, this maximum level of take was chosen for the analysis because if this level of take would not have a significant impact on the Virginia vulture population, then lower levels of take would not have a significant impact either.

Analysis of Potential Impacts on Vulture Populations

WS evaluated and conducted 8 different population impact analyses in the Amendment to the EA. WS conducted analyses for removing up to 1,000 black vultures and 500 turkey vultures in Virginia. No one system to analyze the impacts on vulture populations is perfect and each method has its strengths and weaknesses. Used collectively, they provide the most comprehensive analysis of impacts on vulture populations possible given current data. The 7 different population impact analyses used were 1) Breeding Bird Survey, 2) Christmas Bird Count, 3) Partners in Flight Population Index (400 meters observation distance), 4) Christmas Bird Count Population Index (National Wildlife Research Center analysis), 5) Partners in Flight Land Bird Conservation Plan Analysis, 6) Partners in Flight Land Bird Population Objectives, and 7) Christmas Bird Count Population Index provided by the College of William and Mary. All the analyses are based on the Breeding Bird Survey (BBS) and/or Christmas Bird Count (CBC) data. An eighth population impact analysis produced illogical results and was rejected for use in measuring population impacts.

The BBS and CBC data are the survey instruments used by the USDI, USFWS; US Geological Survey, Division of Biological Survey, and USDA, WS for monitoring vulture and other bird populations. They have been used since the 1980's to detect declines in bird species abundance and since 1994 to estimate population trends (Peterjohn 1994). These survey instruments are appropriate for detecting broad population trends for vultures (Kirk and Mossman 1998, Kiff 2000). For a vast majority of the approximately 650 bird species in North America there is no feasible way to estimate population size because methods have not been developed/tested for the species in question or the methods are too labor intensive to implement in large-scale surveys (Link and Sauer 1998). Thus government agencies, conservation organizations, and others must rely on existing survey instruments to monitor the status of individual bird species populations.

Any population indices calculated from BBS or CBC survey data, including Partners in Flight population models, would

be conservative since both surveys substantially undercount the number of vultures in the environment. Vultures are undercounted due to their behavior and survey methodology. Vultures usually are detected by BBS and CBC observers when vultures are flying. However, Coleman and Fraser (1989) estimated that black and turkey vultures spend 12 – 33% of the day in summer and 9 – 27% of the day in winter flying. Also, the BBS is conducted in the morning and Bunn et al. (1995) reported vulture activity increased from morning to afternoon. These two facets of behavior and methodology of the BBS result in undercounting of vultures.

The BBS is the primary source of information on population change and relative abundance for many North American bird species (Sauer et al. 2003a). Survey results are used for a variety of conservation activities including setting harvest regulations for mourning doves (Sauer et al. 1994) and developing management plans for regional conservation initiatives such as Partners in Flight (Carter et al. 2000). Surveys, such as the BBS, form the primary sources of information on population change (Link and Sauer 1998). While flaws in the BBS are well documented (Sauer et al. 2003) it remains one of the best survey instruments available for most bird species, including vultures.

The CBC survey is another appropriate survey instrument for detecting broad population trends for vultures (Kirk and Mossman 1998, Kiff 2000). We feel the CBC is appropriate data to use for vulture population analysis because there is no definitive population estimate for vultures and this survey instrument allow us to monitor wintering vulture population trends. While CBC observation sites may change from year to year, it is possible to analyze CBC data from the same observation sites to analyze population trends (M. Avery, NWRC, pers. commun.). Also, the CBC is a 24-hour survey thus it can count vultures throughout the day and it's less affected by time-related variations in vulture activity than surveys that count only during a smaller time frame of the day. This can be important as turkey vultures are more numerous in the afternoon than in the morning (Bunn et al. 1995).

Black and turkey vulture populations have been increasing annually in Virginia since at least 1966 according to the Breeding Bird Survey data (Sauer et al. 2001) and since at least 1991 according to Christmas Bird Count data (see pages 41 – 43 in EA; See also Issue 6 in Appendix A of this document for a discussion of the significance of vulture population trend data). Kiff (2000) and WS (see EA Section 4.1.1.1; Amendment to the EA section *Effects on Black and Turkey Vulture Populations*; and Issue 4 in the Response to Comments, Information and Concerns) determined that these survey instruments were adequate for detecting broad population trends.

The maximum take of 1,000 black vultures and 500 turkey vultures by WS was analyzed using the seven population impact analyses.

1) Breeding Bird Survey

The BBS is conducted in May and June each year. The BBS data for black vultures shows an 8.2% annual rate of increase in Virginia for the period 1980 – 2002. Also, the BBS data for turkey vultures shows a 1.6% annual rate of increase in Virginia for the period 1980 -2002. Within Region 5 of the USFWS, both species show statistically significant increasing trends for the period 1980 – 2002. A more recent BBS analysis of black and turkey vulture population trends in Virginia show larger increasing trends of 14.3% and 4.55% respectively for the period 1990 – 2002. Further analysis of black and turkey vulture population trends by Biological Conservation Region within Virginia show stable or increasing trends. Overall both species of vulture have experienced population increases in the eastern United States and Virginia for the period 1980 - 2002 and larger increases for the period 1990 – 2002 (Avery 2004).

A qualitative analysis of the impacts on the black and turkey vulture population was made in the Decision and Finding of No Significant Impact signed January 2003. The analysis concluded the impacts of the maximum take of 2,500 black vultures and 1,500 turkey vultures would be low. The impact of the lower level of take of 1,000 black vultures and 500 turkey vultures proposed in the Amendment to the EA published in October 2004 should also be low.

2) Christmas Bird Count

The CBC is conducted each winter in late December and January. Analysis of 23 CBC sites in Virginia where counts

have been performed annually since 1988 indicates both turkey and black vulture population trends have statistically significant increasing trends.

Qualitative analyses of the impacts on the black and turkey vulture population were made using CBC data (USDA 1997 Revised, 2003). The analyses concluded the impacts of the maximum take of 2,500 black vultures and 1,500 turkey vultures would be low. The impact of the lower level of take of 1,000 black vultures and 500 turkey vultures proposed in the Amendment to the EA published in October 2004 should also be low.

3) Partners in Flight Population Index (400 meters observation distance)

The Partners in Flight Population Index (400 meters observation distance) is calculated using BBS data. The BBS substantially undercounts the number of vultures due to their behavior and the protocol of the BBS counting birds from sunrise until mid-morning. Thus, the yearly population estimates obtained using this system are conservative and an undercount of the actual population. However, this system attempts to make corrections for some of the known biases in population indices calculated using BBS data.

The Amendment to the EA presented a quantitative analysis of the impact of take on black and turkey vulture populations in Virginia (Table 3 and 4). The level of take analyzed was the actual level of take for four consecutive years (2000 – 2003). The level of take was less than the number of birds added to the population from reproduction for both vulture species. Thus the black and turkey vulture population continued to increase. When a theoretical take of 1,000 black and 500 turkey vultures is compared to the 2003 population data, the level of take is less than the number of birds added to the population from reproduction (Table 1 and 2). Therefore, the vulture populations for both species would continue to increase even with a higher level of take.

Table 1. Quantitative assessment of the impacts of WS and Total take on the Black Vulture Population in Virginia.

	Calendar Year				Theoretical Year
	2003	2002	2001	2000	
USFWS Population Estimate ^B	20,251	18,716	17,298	15,987	20,251
Rate of Annual Population Increase ^C	8.2%	8.2%	8.2%	8.2%	8.2%
Number of birds added to population	1661	1,535	1,418	1,311	1,661
WS take	93	463	108	66	1,000 ^A
Non-WS take	84 ^E	84 ^E	84	40	84
Total take	177	547	192	106	1,084 ^D
WS take as % of birds added	6%	30%	8%	5%	60%
Total take as % of birds added ^D	11%	36%	14%	8%	65%

A. Maximum estimated WS take during a "worst-case" scenario year. Population estimate is estimate for 2003 calculated by the USFWS.

B. USFWS estimate of the Virginia black vulture population obtained using data from the BBS survey with corrections for sources of bias in the survey.

C. Rate of population increase obtained from BBS population trend data for Virginia for the period of 1980-2002.

D. Total take calculated using WS estimate of take during a "worst-case" scenario and the highest value of non-WS take for the period of 2000-2003.

E. Data is unavailable so the highest known value is used.

Table 2. Quantitative assessment of the impacts of WS and Total take on the Turkey Vulture Population in Virginia.

	Calendar Year				Theoretical Year
	2003	2002	2001	2000	
USFWS Population Estimate ^B	101,339	99,743	98,172	96,626	101,339
Rate of Annual Population Increase ^C	1.6%	1.6%	1.6%	1.6%	1.6%
Number of birds added to population	1,621	1,596	1,571	1,546	1,621
WS take	51	86	94	50	500 ^A
Non-WS take	41 ^E	41 ^E	41	0	41
Total take	92	127	135	50	541 ^D
WS take as % of birds added	3%	5%	6%	3%	31%
Total take as % of birds added ^D	6%	8%	9%	3%	33%

A. Maximum estimated WS take during a "worst-case" scenario year. Population estimate is estimate for 2003 calculated by the USFWS.

B. USFWS estimate of the Virginia turkey vulture population obtained using data from the BBS survey with corrections for sources of bias in the survey.

C. Rate of population increase obtained from BBS population trend data for Virginia for the period of 1980-2002.

D. Total take calculated using WS estimate of take during a "worst-case" scenario and the highest value of non-WS take for the period of 2000-2003.

E. Data is unavailable so highest known value is used.

4) Christmas Bird Count Population Index (National Wildlife Research Center [NWRC] analysis)

The NWRC analysis used CBC data and an exponential growth equation to verify the precision of the Partners in Flight Population Index (400 meter detection distance). While the CBC does count vultures all day and when they are most likely to be flying in the afternoon, it still substantially undercounts the number of vultures in a fraction of the total area of the state. Vegetation and landscape features may prevent observers from seeing all vultures on their route. Thus, the population estimate for each year is conservative and an undercount of the actual population. The NWRC analysis estimated that there were 3 black vultures that were not counted for every 1 black vulture counted in the CBC survey. NWRC scientists adjusted the population index to reflect vultures missed by the CBC. This resulted in a statewide black vulture population index of 42,709 in Virginia in 2002.

The level of take of 1,000 black vultures was analyzed against the revised estimate of the 2002 vulture population (Table 3). The results were a take of 1,000 black vultures is much less than the number of birds added to the population from reproduction. The black vulture population would continue to increase.

Table 3. Quantitative assessment of the impacts of WS and Total take on the Black Vulture Population in Virginia.

	Calendar Year		
	2003	2002	2001
NWRC Population Estimate	46,211	42,709	39,466
Rate of Annual Population Increase ^A	8.2%	8.2%	8.2%
Number of birds added to population	3,502	3,243	-
WS theoretical take	1,000	1,000	-
Non-WS take	41 ^E	41 ^E	41

Total take	1,041	1,041	-
WS take as % of birds added	29%	31%	-
Total take as % of birds added ^B	30%	32%	-

A. Rate of population increase obtained from BBS population trend data for Virginia for the period of 1980-2002.

B. Total take calculated using WS estimate of take during a "worst-case" scenario and the highest value of non-WS take for the period of 2000-2003.

C. Data is unavailable so highest known value is used.

5) Partners in Flight Land Bird Population Objectives

The PIF Land Bird Population Objective was a species assessment process using a system of seven measures of conservation vulnerability. The lower the score, the less vulnerable the species is to decline. The lowest possible score is a "5". Black vultures received an overall score of 5 out of 25 and turkey vultures received an overall score of 6 out of 25. These scores are comparable to other common birds such as resident populations of Canada geese, American crow, double-crested cormorants, American robins, northern cardinals, European starlings, house sparrows, and pigeons.

WS conducted a qualitative analysis of the take of 1,000 black vultures and 500 turkey vultures using the same methodology in 1) Breeding Bird Survey and 2) Christmas Bird Count, and factoring in the PIF Land Bird Population Objective information. WS concluded the overall impact to the black and turkey vulture populations in Virginia was low.

6) Partners in Flight Land Bird Population Objectives

The Land Bird Population Objectives used a process that chose the late 1960's as the baseline year to determine if a species was in decline. Black and turkey vultures populations have increased since 1966, therefore the 1966 population densities appear to have been viable.

WS chose to use 1980 as the baseline year for black and turkey vultures due to the impacts of the pesticide DDT. During the 1960's and 1970's DDT caused lower population growth rates for vultures and other bird species. The current BBS trend data indicates the black vulture population is 147% larger in 2003 than 1980. The current BBS trend data indicates the turkey vulture population is 59% larger in 2003 than 1980.

WS used a conservative approach with 1980 as the baseline year for black and turkey vulture populations. A total of 1,759 black vultures were counted in the CBC survey in Virginia during 1980. If the conservative Partners in Flight Population Index (400 meters observation distance) model is used to calculate a 2003 population of 20,251 black and 101,339 turkey vultures, then the population would need to decline to the 1980 population level. WS considered a take of 1,000 black and 500 turkey vultures. This level of take is substantially less than the 18,631 black vultures and 93,232 turkey vultures that would need to be taken to jeopardize the viability of the vulture population in Virginia. WS concludes this level of take has inconsequential impact to the vulture populations in Virginia.

7) Christmas Bird Count Population Index (VDGIF and College of William and Mary)

The Christmas Bird Count Population Index (VDGIF and College of William and Mary) methodology calculates a conservative population estimate of black and turkey vultures in Virginia. The methodology converts the number of vultures counted on CBC surveys into mean densities for each physiographic region (coastal plain, piedmont, ridge and valley). The mean densities were multiplied by the total land area for each physiographic region and summed for the state. This resulted in a population index of 16,119 black vultures and 40,412 turkey vultures.

WS analyzed a take of 1,000 black vultures and 500 turkey vultures against these vulture population indices (Table 4 and 5). This level of take would be less than the number of birds added to the population each year through

reproduction. However, this level of take would substantially reduce the level of recruitment to the black vulture population each year, but the population would continue to increase. Similar conclusion could be drawn about impacts to the turkey vulture population. Therefore, using the criteria in USDA 1997 Revised, WS concludes that the impact of the maximum level of take on black vultures is moderate and turkey vultures is low.

Table 4. Quantitative assessment of the impacts of WS and Total take on the Black Vulture Population in Virginia. Population index developed by Virginia Department of Game and Inland Fisheries (VDGIF) and the College of William and Mary (CWM).

	Calendar Year		
	2003	2002	2001
VDGIF and CWM	16,119	13,841	12,109
Population Estimate			
Rate of Annual	14.3%	14.3%	14.3%
Population Increase ^A			
Number of birds added	2,278	1,732	-
to population			
WS theoretical take	1,000	1,000	-
Non-WS take	84 ^c	84 ^c	84
Total take	1,084	1,084	-
WS take as % of birds	44%	58%	-
added			
Total take as % of	48%	63%	-
birds added			

A. More recent rate of population increase obtained from BBS population trend data for Virginia for the period of 1990-2002.

B. Total take calculated using WS estimate of take during a "worst-case" scenario and the highest value of non-WS take for the period of 2000-2003.

C. Data is unavailable so highest known value is used.

Table 5. Quantitative assessment of the impacts of WS and Total take on the Turkey Vulture Population in Virginia. Population index developed by Virginia Department of Game and Inland Fisheries (VDGIF) and the College of William and Mary (CWM).

	Calendar Year		
	2003	2002	2001
VDGIF and CWM	40,412	38,576	36,897
Population Estimate			
Rate of Annual	4.55%	4.55%	4.55%
Population Increase ^A			
Number of birds added	1,755	1,679	-
to population			
WS theoretical take	500	500	-
Non-WS take	41 ^c	41 ^c	41
Total take	541	541	-
WS take as % of birds	28%	30%	-
added			
Total take as % of	31%	32%	-
birds added			

A. More recent rate of population increase obtained from BBS population trend data for Virginia for the period of 1990-2002.

B. Total take calculated using WS estimate of take during a "worst-case" scenario and the highest value of non-WS take for the period of 2000-2003.

C. Data is unavailable so highest known value is used.

Public Involvement

Issues related to the proposed action were initially developed by an interdisciplinary team involving the VDGIF and USFWS. This multi-agency team refined the issues and identified preliminary alternatives. An invitation for public comment letter on the Amendment to the EA was sent to 116 individuals or organizations who commented on the January 2003 EA or were identified as interested in Virginia WS or VDGIF projects. Notice of the proposed action and invitation for public involvement on the pre-decisional EA was placed in four newspapers (Richmond Times-Dispatch, The Virginia Pilot, The Roanoke Times, and The Washington Times) with circulation throughout Virginia. There was a 32-day comment period for the public to provide input on the pre-decisional EA. A six day extension to the comment period was requested and granted for a total of a 38 day comment period. Nine comment letters were received from the public after review of the Amendment to the EA. One comment letter was signed by seven individuals representing seven organizations. An analysis of the comment letters revealed that five were submitted by organizations, one by a farm, and three from individuals. All comments were analyzed to identify substantial new issues, impacts, or alternatives. All letters and responses are maintained in the administrative file located at the Virginia WS State Office, P.O. Box 130, Moseley, Virginia 23120. Wildlife Services response to specific comments and issues are included in Appendix A of this Decision and FONSI.

Major Issues

The Amendment to the EA examined impacts on the black and turkey vulture population compared to the five alternatives. The alternatives were also restructured to more clearly inform the public of the impacts of WS actions and the potential actions of the public under each alternative.

The EA describes the alternatives considered and evaluated using the identified issues. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25).

- Effects on target bird species populations
- Effects on nontarget wildlife species populations, including T&E species
- Effects on human health and safety
- Effects on aesthetics
- Humaneness of lethal bird control methods

Affected Environment

The areas of the proposed action include agricultural areas (e.g., livestock farms) where black vultures could prey on livestock. The areas could also include personal property in or adjacent to subdivisions, business and industrial parks where vultures roost or loaf. Additionally, the public and local health officials have concerns about large quantities of fecal droppings associated with vulture roosts when roosts are near human habitation and where children play. The proposed action could also include private and public property.

Alternatives That Were Fully Evaluated

The following Alternatives were developed by the Multi-agency Team to respond to the issues. A detailed discussion of the effects of the Alternatives on the issues is described in the EA; below is a summary of the Alternatives.

Alternative 1 - Integrated Wildlife Damage Management/ Vulture Damage Management Program

(Proposed Action) - The proposed action is for the WS program in the Commonwealth of Virginia to continue the current Integrated Wildlife Damage Management (IWDM) program that will respond to requests for Vulture Damage Management (VDM) to protect property, livestock, pets, human health and safety, and agricultural resources in the Commonwealth of Virginia. An IWDM approach would be implemented which would allow use of any legal technique or method, used singly or in combination, to meet requestor needs for resolving conflicts with turkey or black vultures (Appendix B of the EA). Cooperators requesting assistance would be provided with information regarding the use of effective nonlethal and lethal techniques. Lethal methods used by WS would include shooting and live trapping

followed by euthanasia. Nonlethal methods used by WS may include habitat alteration, husbandry practices, wire barriers and deterrents, tactile repellents, harassment, and scaring devices. In many situations, the implementation of nonlethal methods such as habitat alteration, husbandry practices, harassment, scare devices, and mechanical repellents would be the responsibility of the requestor to implement. VDM by WS would be allowed in the State, when requested, on private property sites or public facilities where a need has been documented and upon completion of an *Agreement for Control*. All management actions would comply with appropriate federal, state, and local laws.

Alternative 2 - Nonlethal VDM Only By WS - Under this alternative, only nonlethal direct control activities and technical assistance would be provided by WS to resolve vulture damage problems. Persons receiving technical assistance could still resort to lethal methods that were available to them. Requests for information regarding lethal management approaches would be referred to VDGIF, VDACS, USFWS, local animal control agencies, or private businesses or organizations. Individuals or agencies might choose to implement WS nonlethal recommendations, implement lethal methods or other methods not recommended by WS, contract for WS nonlethal direct control services, use contractual services of private businesses, use volunteer services of private organizations, or take no action. In some cases, control methods employed by others could be contrary to the intended use or in excess of what is necessary. Appendix B of the EA describes a number of nonlethal methods available for use or recommendation by WS under this alternative.

Alternative 3 - Technical Assistance Only - This alternative would not allow for WS operational VDM in Virginia. WS would only provide technical assistance and make recommendations when requested. Producers, property owners, agency personnel, or others could conduct VDM using traps, shooting, or any nonlethal method that is legal. Appendix B of the EA describes a number of methods that could be employed by private individuals or other agencies after receiving technical assistance advice under this alternative.

Alternative 4 - Lethal VDM Only By WS - Under this alternative, only lethal direct control services and technical assistance would be provided by WS. Technical assistance would include making recommendations to the USFWS regarding the issuance of permits to resource owners to allow them to take vultures by lethal methods. Requests for information regarding nonlethal management approaches would be referred to VDGIF, VDACS, USFWS, local animal control agencies, or private businesses or organizations. Individuals or agencies might choose to implement WS lethal recommendations, implement nonlethal methods or other methods not recommended by WS, contract for WS lethal direct control services, use contractual services of private businesses, use volunteer services of private organizations, or take no action. In some cases, control methods employed by others could be contrary to the intended use or in excess of what is necessary. Not all of the methods listed in Appendix B of the EA as potentially available to WS would be legally available to all other agencies or individuals.

Alternative 5 - No Federal WS VDM - This alternative would eliminate WS involvement in VDM in Virginia. WS would not provide direct operational or technical assistance, and requesters of WS services would have to conduct their own VDM without WS input.

Finding of No Significant Impact

The analyses in the EA and Amendment to the EA demonstrate that Alternative 1 (*Integrated Wildlife Damage Management / Vulture Damage Management Program* (Proposed Action): 1) best addresses the issues identified in the EA, 2) provides safeguards for public health and safety, 3) provides WS the best opportunity to reduce damage while providing low impacts on nontarget species, 4) balances the economic effects to agriculture and property, and 5) allows

WS to meet its obligations to the VDGIF, USFWS, and other agencies or entities.

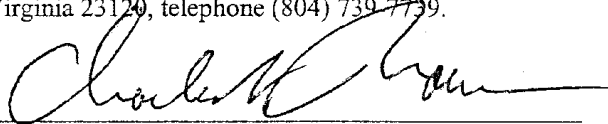
The analysis in the Amendment to the EA indicates that there will not be a significant impact, individually or cumulatively, on the quality of the human environment as a result of this proposed action. I agree with this conclusion and therefore find that an EIS need not be prepared. This determination is based on the following factors:

1. Vulture damage management, as conducted by WS in Virginia, is not regional or national in scope.
2. The proposed action would pose minimal risk to public health and safety.
3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected.
4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to wildlife damage management, this action is not highly controversial in terms of size, nature, or effect.
5. Based on the analysis documented in the Amendment to the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.
6. The proposed action would not establish a precedent for any future action with significant effects.
7. No significant cumulative effects were identified through this assessment. The number of vultures taken by WS, when added to the total known take, falls within a low magnitude of take or take is less than the number of vultures added to the population each year from reproduction.
8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.
9. WS determined that the proposed vulture damage management program would have no effect on listed birds, mammals, invertebrates, plants, reptiles, amphibians, fish, or plants or their critical habitats in Virginia. An informal Section 7 consultation with the USFWS (Letter from K. Mayne, USFWS, to M. Lowney, WS, November 20, 2002) confirmed that the proposed action would not likely adversely affect any federally listed or proposed T&E species or their designated critical habitat.
10. The proposed action would be in compliance with all federal, state, and local laws imposed for the protection of the environment.

Decision and Rationale

I have carefully reviewed the Amendment to the EA and the input from the public involvement process. I believe that the issues identified in the Amendment to the EA are best addressed by selecting Alternative 1 (*Integrated Wildlife Damage Management / Vulture Damage Management Program* (Proposed Action) in the EA and Amendment to the EA and applying the associated mitigation and monitoring measures discussed in Chapter 3 of the EA. Alternative 1 would provide the greatest effectiveness and selectivity of methods available, the best cost-effectiveness, and has the potential to even further reduce the current low level of risk to the public and pets from vulture damage management methods. WS will continue to use currently authorized wildlife damage management methods in compliance with all the applicable mitigation measures listed in Chapter 3 of the EA. I have adopted the Amendment to the EA as final and in support of the Pre-Decisional EA "*Management of Vulture Damage in the Commonwealth of Virginia*" with the Decision and Appendix A (Response to Comments) signed on January 15, 2003, as the final. Issues provided during public involvement were valuable but, did not change the conclusions of the analysis.

For additional information regarding this decision, please contact Martin Lowney, APHIS-WS, P. O. Box 130, Moseley, Virginia 23120, telephone (804) 739-7799.



Charles S. Brown, Regional Director
APHIS-WS Eastern Region

2/10/05
Date